

Interaction of vinylphosphonates with 1,2-diaminoethane and ethanolamine

Khusainova N., Mostovaya O., Berdnikov E., Rybakov S., Cherkasov R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The reaction of 1,2-diaminoethane with vinylphosphonate occurs as the addition of the amino group to the β -carbon atom of the unsaturated substrate to give 1:1 and 1:2 adducts. The nucleophilic addition of 2-aminoethanol at the β -position of the double bond of vinylphosphonates involves only the amino group and leads to the formation of hydroxy β -aminoethylphosphonates or zwitterions depending on conditions.

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Keywords

β -aminoethylphosphonates, 1,2-diaminoethane, 2-aminoethanol, Addition, Betains, Vinylphosphonate